

# Work Order ID 65705

January 24, 2011 8:49:58 AM



Page 1

Item ID: D3407-5

Accept



Setup Start



Revision ID:

Stop



Item Name: Ring

Start Date: 1/24/11

Start Qty: 12.00



Cust Item ID:

Required Date: 2/11/11

Req'd Qty: 12.00



Customer:

Reference:

Approvals:

Process Plan:

*W*

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3407

Rev E

100

0.00



Waterjet

FLOW WATER JET

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3407

Dwg Rev: *5*

Prog Rev: *2*

17.4 .250x 4.1

2-Break edges on grinder as per Dwg D3407

*Debur - m.d 11/01/26* *(12x)* *P10*

110

0.00



QC

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

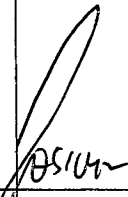
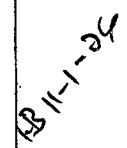

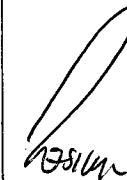
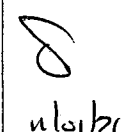
Quality Control

*1311-1-24*

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3407-5 PAR #:   Fault Category: Small Part/W-Jet NCR: Yes No DQA:   Date: 11/01/26  
 Resolution: Scrap Disposition: Scrap QA: N/C Closed:   Date: 11/01/27

NCR: <u>65705</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11/01/26	#100	Qty x1 part moves when cutting with w/3. inside dia has a large step in it and is over tol by .030"		-Scrap + Destroy no replace Qty x1	11-1-26 	 11/01/26		 11/01/26

NOTE: Date & initial all entries

# Work Order ID 65705

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Page 2

Item ID: D3407-5

Accept



Setup Start



Revision ID:

Stop



Item Name: Ring

Start Date: 1/24/11 Start Qty: 12.00



Cust Item ID:

Required Date: 2/11/11 Req'd Qty: 12.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							
QC	Memo	0.00							
Quality Control									
130	Identify as per dwg & Stock Location: <i>N/A</i>	0.00							
Packaging	Memo	0.00							
Packaging	*****STOCK IN LARGE FAB*****								
140	QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									

*EL 11-1-27*

*11/01/27*

*11-01-27*

# Picklist Print

January 24, 2011 8:49:57 AM

Page 1

Work Order ID: 65705

Parent Item: D3407-5

Parent Item Name: Ring



Start Date: 1/24/11

Required Date: 2/11/11

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP Rev:A New Issue 05-11-22 JLM  
 IPP Rev:B Now on Waterjet 08-05-14 JLM Verified By:DD  
 IPP Rev:C 08-08-12 revE as per dwg (ecn 08-507) DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M174B0.250X4.000		Purchased	No			100	f	3.2300	0.2666	3.367579			
17-4 SS Bar .250 X 4.00													
						<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>					
						MAT	3.23						
						115686	3.23						
										115686			

13 11-1-24

12

DART AEROSPACE LTD		Work Order: 65705
Description: Tow Ring		Part Number: D3407-5
Inspection Dwg: D3407 Rev: E		Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

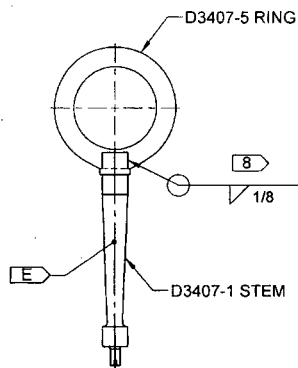
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.250	+/-0.010	.260	6		VIR02	
Ø3.000	+/-0.030	2.993	X		u	
Ø2.050	+0.012/-0.001	2.054	L		u	
0.75	+/-0.030	.750	✓		u	

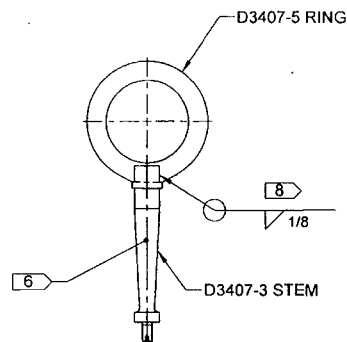
Measured by: RB	Audited by: S	Prototype Approval: N/A
Date: 11-1-24	Date: 11/6/24	Date: N/A

Rev	Date	Change	Revised by	Approved
A	07.02.02	New Issue	KJ/JLM	
B	07.09.18	Tolerance revised	KJ/EC	
C	08.05.14	Dimensions updated per Dwg Rev D	KJ/JLM	
D	09.05.04	Dwg Rev updated	KJ/DD	

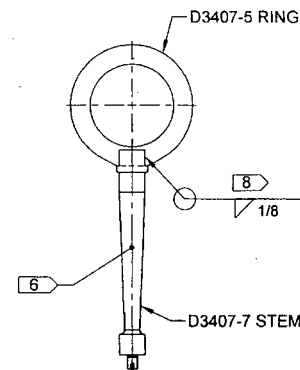
QTY -041	QTY -043	QTY -045	PART NUMBER	DESCRIPTION
X			D3407-041	TOW RING
	X		D3407-043	TOW RING
		X	D3407-045	TOW RING
1			D3407-1	STEM
	1		D3407-3	STEM
1	1	1	D3407-5	RING
		1	D3407-7	STEM



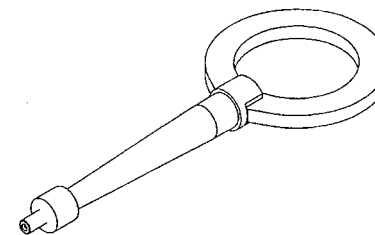
**D3407-041 TOW RING**



**D3407-043 TOW RING**



**D3407-045 TOW RING**



**RELEASED**  
07-08-01-1111

*ulb 65705*

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
- 8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

E	ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY	PH	08.07.23
D	D3407-1/-3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2, C2-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/-3 (ZN B6-4); REASON: PRODUCTION FACILITY	PH	08.04.07
C	-1/3 LONGER FOR FIT W/WASHER	CP	05.09.09
B	UPDATE DIAMETER, THREAD CLASS ADDED	CP	05.06.17
A	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.07.23		

**DART AEROSPACE USA, INC.**

PORT HADLOCK, WA

DRAWING NO.

D3407

REV. E

SHEET 1 OF 5

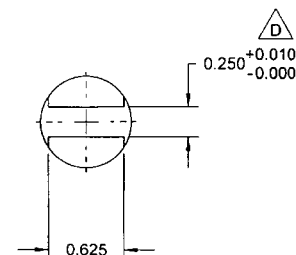
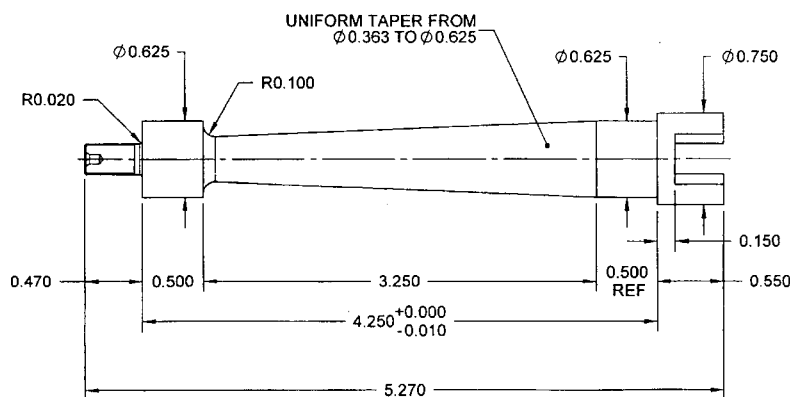
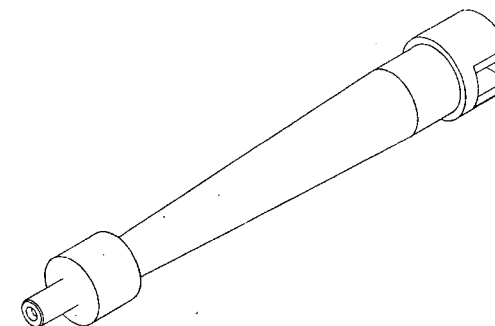
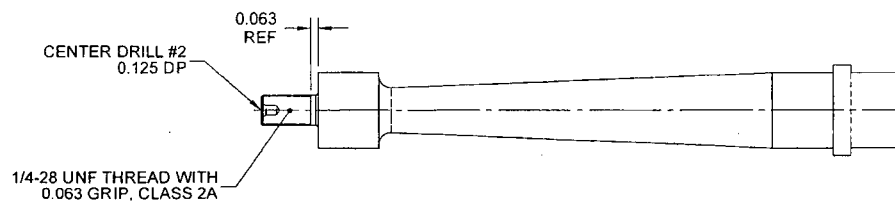
TITLE

TOW RING

SCALE

NTS

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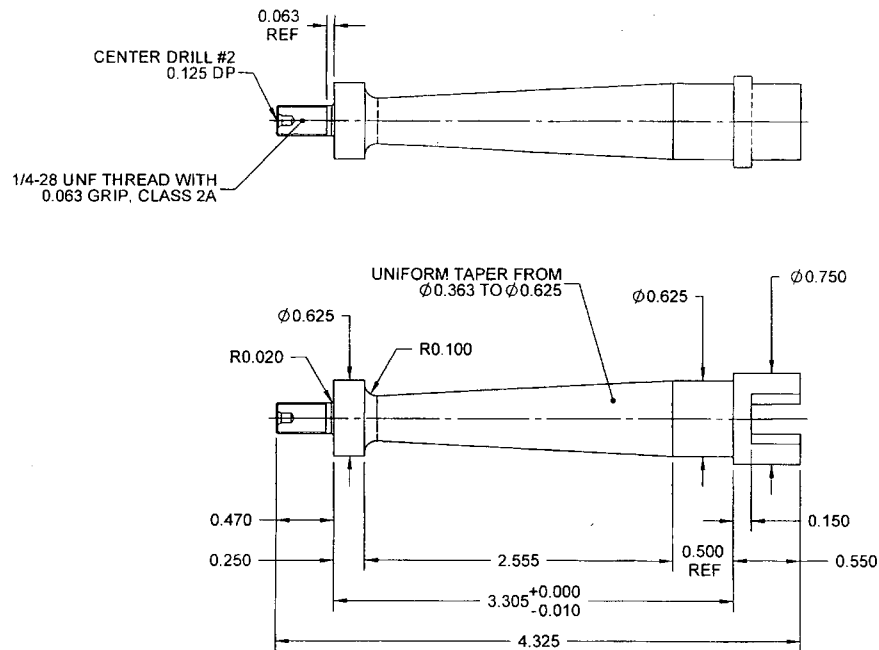
**D3407-1 STEM**

**RELEASED**

65705

- NOTES:
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.33 lbs

DESIGN		<b>DART AEROSPACE USA, INC.</b>	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 2 OF 5
APPROVED		TITLE	SCALE
DE APPR.		TOW RING	NTS
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**D3407-3 STEM**

**NOTES:**

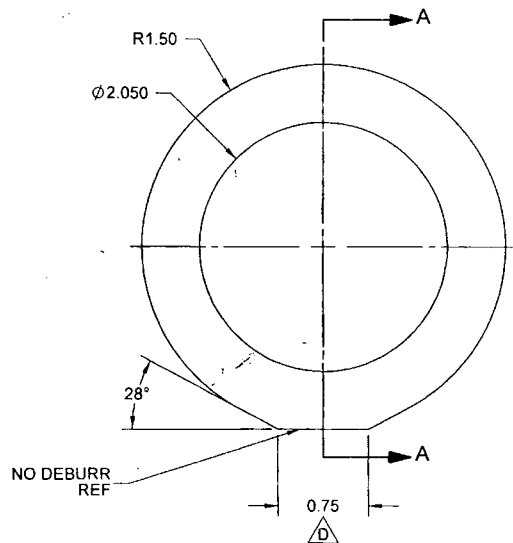
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.27 lbs

DESIGN	per	<b>DART AEROSPACE USA, INC.</b>	
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CHECKED	per	DRAWING NO.	REV. E
MFG. APPR.	per	D3407	SHEET 3 OF 5
APPROVED	per	TITLE	SCALE
DE APPR.	per	TOW RING	NTS
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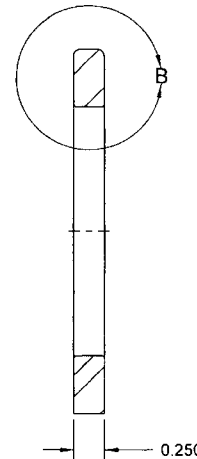
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08-08-01-1111

65705

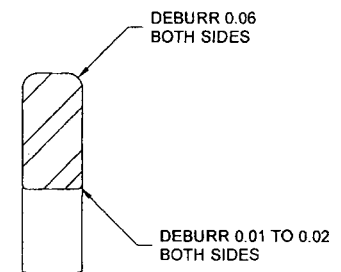
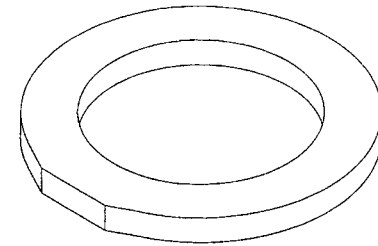




**D3407-5 RING**



**SECTION A-A**



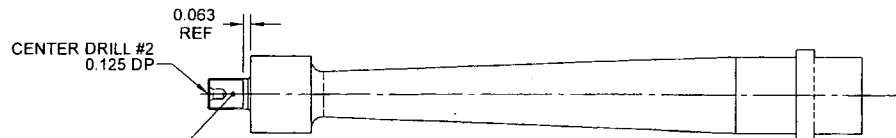
**DETAIL B  
SCALE 2X**

**RELEASED**  
08-08-01/14

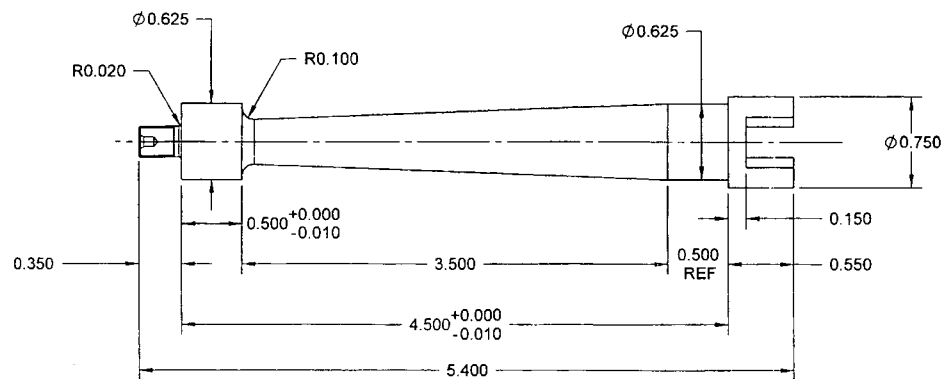
- NOTES:**
- 1) MATERIAL: 17-4 PH SS BAR PER AMS 5604/5643 (REF. DART SPEC M17-4-B)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: N/A
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.27 lbs

65705

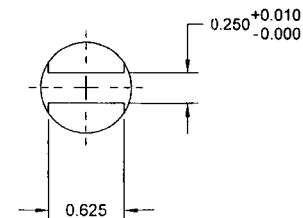
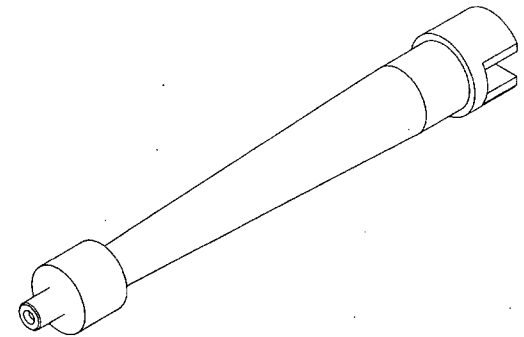
DESIGN	92	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
DRAWN	1/28		
CHECKED		DRAWING NO. <b>D3407</b>	REV. E
MFG. APPR.			SHEET 4 OF 5
APPROVED		TITLE <b>TOW RING</b>	SCALE
DE APPR.			NTS
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1/4-28 UNF THREAD WITH  
0.063 GRIP, CLASS 2A



**D3407-7 STEM**



- NOTES:
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.34 lbs

65705

**RELEASED**

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DRAWN	IPM	PORT HADLOCK, WA	
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MFG. APPR.		D3407	SHEET 5 OF 5
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